

WHAT IS CLAIMED IS:

1. A driving system of a motor vehicle, comprising:
a driving power source that generates power;
a belt-and-pulley type continuously variable transmission that transmits the power received from the driving power source to a drive wheel while changing a first speed of rotation of an input shaft thereof to a second speed of rotation of an output shaft thereof; and

a speed changing mechanism provided between the driving power source and the continuously variable transmission so as to increase or reduce a speed of rotation of the driving power source during forward running of the vehicle.

2. The driving system according to claim 1, wherein the speed changing mechanism comprises at least one planetary gear set, and has a forward-drive/reverse-drive switching function of establishing a selected one of a cut-off mode in which power transmission is cut off, a forward drive mode in which the vehicle runs forward, and a reverse drive mode in which the vehicle runs backward.

3. The driving system according to claim 2, wherein:
the driving power source comprises a diesel engine; and
the speed changing mechanism transmits the power generated by the diesel engine to the continuously variable transmission while increasing a speed of rotation of the diesel engine during forward running of the vehicle.

4. The driving system according to claim 3, wherein:
the belt-and-pulley type continuously variable transmission is applicable to a driving system of a motor vehicle in which a gasoline engine is installed as the driving power source, and is designed so as to provide appropriate performance when a power of the gasoline engine is transmitted as it is to the

continuously variable transmission; and

a speed ratio at which the speed changing mechanism changes the speed of rotation of the driving power source is determined so that a maximum torque applied from the diesel engine to the continuously variable transmission is substantially equal to or smaller than a maximum torque applied from the gasoline engine to the continuously variable transmission.

5. The driving system according to claim 1, wherein:

the driving power source comprises a diesel engine; and

the speed changing mechanism transmits the power generated by the diesel engine to the continuously variable transmission while increasing a speed of rotation of the diesel engine during forward running of the vehicle.

6. The driving system according to claim 5, wherein:

the belt-and-pulley type continuously variable transmission is applicable to a driving system of a motor vehicle in which a gasoline engine is installed as the driving power source, and is designed so as to provide appropriate performance when a power of the gasoline engine is transmitted as it is to the continuously variable transmission; and

a speed ratio at which the speed changing mechanism changes the speed of rotation of the driving power source is determined so that a maximum torque applied from the diesel engine to the continuously variable transmission is substantially equal to or smaller than a maximum torque applied from the gasoline engine to the continuously variable transmission.